

member 12 and below the heel attachment member 14, respectively, to connect and strengthen the longitudinal members 20, 22. Preferably, another lateral section 38 connects the longitudinal members 20, 22 near the middle of the chassis 10 along its length. A plurality of openings 40 are provided to accommodate the wheels 30. The portions of the openings 40 defined by each web section 36-38 preferably have chamfered or contoured edges 41 (FIG. 5). This accommodates closer positioning of adjacent wheels 30 through the openings 40 of the web sections 36-38. Skates having a shorter length from the front to rear wheel 30 are often desirable for maneuverability.

The chassis 10 preferably has a unibody construction, substantially formed from an extruded aluminum billet which is then machined in a method known to those skilled in the art. The preferred material is 7116 aluminum alloy with T6 heat treatment; although, other alloys and treatments may be used with the present invention with equally beneficial results. In alternative embodiments, the attachment members 12, 14, longitudinal members, 20, 22, and web sections 36-38 may be separately formed and welded together, as desired, or other suitable manufacturing techniques may be used.

The embodiment described herein is provided merely for illustration. Changes and modifications may be made from the embodiment presented herein by those skilled in the art without departure from the spirit and scope of the invention, as defined by the appended claims.

What is claimed is:

1. An integrally formed roller skate chassis adapted for attachment of a plurality of skate wheels, said chassis comprising:

- a heel attachment member and a forefoot attachment member for attaching said chassis to a skating boot; and
- a pair of laterally spaced longitudinal members, said longitudinal members having generally planar upper portions with upper edges integrally attached to said heel and forefoot attachment members and lower portions for accommodating attachment of a wheel set, one of said upper portions being substantially coplanar with a respective lower portion, the other one of said upper portions being inclined toward the coplanar one of said upper portions, said lower portions in an upwardly extending direction being substantially parallel to each other, and one or more connecting webs extending between said longitudinal members and integrally attached to said longitudinal members where said upper and lower portions intersect;

wherein said chassis has enhanced structural integrity for a given weight of material.

2. The chassis of claim 1, wherein said lower portions have one or more horizontally elongated openings formed therein to reduce weight and excess material.

3. The chassis of claim 1, wherein said lower portions have one or more ribs formed thereon.

4. The chassis of claim 1, wherein said connecting webs have one or more chamfered edges adjacent to said skate wheels so as to accommodate closer spacing between said skate wheels.

5. An integrally formed roller skate chassis, adapted for attachment of a plurality of skate wheels, said chassis comprising:

a heel attachment member and a forefoot attachment member for attaching said chassis to a skating boot; and
 a pair of laterally spaced longitudinal members having upper edges integrally attached to said heel and forefoot members, said longitudinal members having upper and lower generally planar portions separated by one or more web members extending between said longitudinal members and attached thereto, said upper portions forming substantially convergent planes in an upwardly extending direction above said one or more web members, said lower portions forming substantially parallel planes below said one or more web members, such that said chassis forms substantially an A-frame when viewed in cross section;

wherein said chassis has enhanced structural integrity and more efficient transfer of power from a skater to said skate wheels during use.

6. The chassis of claim 5, wherein said one or more web members are spaced to form a plurality of openings for accommodating said wheels.

7. The chassis of claim 5, wherein said chassis has an extruded unibody construction.

8. The chassis of claim 7, wherein said chassis is formed from an extruded aluminum billet which is machined to the desired shape.

9. The chassis of claim 5, wherein said chassis has flush-mounted, rockable axle holes.

10. The chassis of claim 5, wherein said lower portions have at least one horizontally elongated opening formed therein to reduce weight and excess material.

11. The chassis of claim 5, wherein said lower portions have at least one rib formed thereon.

12. The chassis of claim 5, wherein said web members have at least one chamfered edge adjacent to said skate wheels so as to accommodate closer spacing between said skate wheels.

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13. A roller skate chassis assembly for attachment to a skate boot, the chassis assembly comprising:

a forefoot section and a heel section;

a pair of elongate, spaced apart support members spanning the forefoot and heel sections of the chassis, each support member having a substantially planar lower portion, the lower portions being parallel to each other and adapted to receive a plurality of skate wheels therebetween;

at least one cross-member extending between and attached to the lower portions of the support members, the cross-member positioned so as to be between successive wheels;

an upper portion in the forefoot section of each support member, the upper portion extending upwardly from the lower portion and having an upper edge, and a mounting flange extends from each upper edge, the mounting flange having at least one mount hole; and

an upper portion in the heel section of each support member, the upper portion extending upwardly from the lower portion and having an upper edge, and a mounting flange extends from each upper edge, the mounting flange having at least one mount hole;

wherein in at least one of the heel and forefoot sections, the upper portions lie in substantially convergent planes in an upwardly extending direction.

14. The chassis of Claim 13, wherein the upper portions in the heel section of the chassis lie in substantially convergent planes in an upwardly extending direction and the upper portions in the forefoot section of the chassis are substantially coplanar with the lower portions.

15. The chassis of Claim 13, wherein the upper portions in the forefoot section of the chassis lie in substantially convergent planes in an upwardly extending direction and the upper portions in the heel section of the chassis are substantially coplanar with the lower portions.

16. The chassis of Claim 13, wherein the chassis has an extruded unibody construction.

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17. The chassis of Claim 13, wherein the support members are formed separately from one another.

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18. The chassis of Claim 13, wherein each mounting flange extends from its respective upper edge in a direction away from the opposing upper portion.

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